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Hubungan Anemia dengan Status Kognitif dan  
Kefungsian Warga Tua di Rembau, Negeri Sembilan  
(Relationship of Anaemia with Cognitive and Functional Status of  
Elderly in Rembau, Negeri Sembilan)

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ABSTRAK

*The prevalence of anaemia and nutritional status was evaluated among 88 Malay elderly (20 men and 68 women) aged 60 to 85 years (mean age  $69.8 \pm 6.0$  years) from four villages in Rembau district, Negeri Sembilan. In addition, the relationship between hemoglobin with nutrient intake, cognitive and functional status of the elderly were also investigated. Subjects were interviewed to obtain information on demographic and nutrient intake. Cognitive status was assessed using Elderly Cognitive Assessment Questionnaire (ECAQ) while functional status was measured using Instrumental Activity Daily Living (IADL) and hand grip measurement. Hemoglobin level was determined using HemoCue method. The findings indicated that the prevalence of anaemia was 22.7%. Prevalence of anaemia for male subject was 30.0% with mean of hemoglobin as  $11.7 \pm 1.0$  g/dL while 20.6% of female subject was anaemic with mean of hemoglobin was  $11.2 \pm 0.5$  g/dL. As much as 21.6% of the subjects have cognitive impairment with the prevalence is high in old-old age group (57.9%) compared to the young-old age group (11.6%). Results from functional assessment showed that mean for IADL score as  $11 \pm 3$ . The IADL score was lower in old-old age group ( $9 \pm 4$ ) compared to the young-old age group ( $12 \pm 2$ ). For hand grip measurement, overall mean was  $16.8 \pm 8.7$  kg ( $14.2 \pm 8.4$  kg for old-old age group and  $17.6 \pm 8.7$  kg for young-old age group). Nutrient analysis showed that the mean calorie intake for men ( $1310 \pm 448$  kcal/day) and women ( $1180 \pm 300$  kcal) were lower than the RNI. However, only intakes of iron, niacin and vitamin A achieved the Malaysian Recommended Nutrient Intake (RNI). Correlation between hemoglobin and nutrients was only showed with calorie intake*

( $r=0.486$ ,  $p=0.048$ ) and not with other nutrients. Besides that, there was no correlation between hemoglobin with ECAQ and IADL scores but hemoglobin was correlated with hand grip strength ( $r=0.265$ ,  $p=0.013$ ). As a conclusion, 22.7% case of anaemia was reported in this study. However, correlations were only formed between hemoglobin with calorie intake and hemoglobin with hand grip. Anaemia in elderly increases the inability of the elderly to live independently.

*Keywords: Anemia; cognitive status; elderly; functional status*

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